Paper No. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte IRVING DOSHAY

Appeal No. 2001-0534
Application No. 09/271,626

ON BRIEF

Before COHEN, ABRAMS, and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 to 8, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to robotic means of providing fire protection via unmanned air vehicles (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Dellinger et al. (Dellinger)	4,666,105	May 19, 1987
Foote	5,503,350	Apr. 2, 1996
Primiani	5,507,350	Apr. 16, 1996

Claims 1 to 4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Foote in view of Primiani.

Claims 5 to 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Foote in view of Primiani and Dellinger.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (Paper No. 8,

mailed October 30, 2000) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 7, filed October 10, 2000) and reply brief (Paper No. 9, filed December 28, 2000) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 1 to 8 under 35 U.S.C. § 103. Our reasoning for this determination follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of

obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Claims 1 to 7

Claims 1 to 7 are drawn to a robotic fire protection system comprising, inter alia, a robotic survey vehicle for surveying an area which it is desired to protect from fire damage; a robotic fire suppression vehicle for administering fire suppressing agents upon command, which is maintained/deployed at a strategic location within said area; and a manned control and monitoring station for remote control of said robotic survey vehicle and said robotic fire suppression vehicle.

Foote's invention relates to a microwave-powered aircraft and, more particularly, an unmanned, remotely controlled aircraft to which microwave power is transmitted from a ground

station and converted to useful DC power by arrays of rectifying antennas mounted on the aircraft, the aircraft being capable of long-duration, high-altitude missions. Figure 1 of Foote shows an unmanned microwave-powered aircraft system including a ground control center 20 associated with a microwave transmission antenna 22 for transmitting upwardly a power beam indicated by lobe outline 24 to an aircraft 26, which is to be powered by the microwaves. The aircraft 26 is propelled by one or more electric motors housed in a pair of torpedo-shaped nacelles 28 driving propellers 30. A return tracking signal 27 from the aircraft 26 back down to the beaming antenna 22 provides feedback to the ground control center 20 to aim and focus the beaming antenna in an optimum manner on the aircraft. Foote discloses that preferably, the aircraft 26 is towed to a height of approximately 15,000 feet and released within the microwave beam 24 to be thereafter remotely powered up to a height of 70,000 feet to fly in a figure-8 pattern of approximately 2 kilometers in length directly above the ground station. Foote teaches (column 10, lines 13-34) that

> The unmanned aircraft 26 of the present invention is designed for highly efficient flight in order to stay aloft for periods of months and possibly years before requiring landing and servicing. The aircraft 26 may thus be recovered and re-launched at an extremely low cost, as opposed to conventional satellites. One advantage is that the payload does not have to be an extremely costly unit, as the cost of placing cargo on board the aircraft is substantially reduced. Thus, for example, possible payloads include simple cargo, high resolution cameras, infrared scanners, radar equipment, parachutes containing search and rescue containers, chemical sampling units, and other equipment. Some of the missions of which the aircraft is capable include a communications link, atmospheric studies, geophysical surveys, pollution monitoring, aerial video recording, Coast Guard patrol, search and rescue (SAR), **forest fire prevention**, anti-submarine warfare, drug enforcement, missile detection, etc. The options are essentially limitless as the cost of putting cargo on board the aircraft and placing the aircraft aloft is dramatically reduced compared to conventional satellites. [Emphasis ours.]

Primiani's invention relates to fire fighting equipment and methods and more particularly to extinguishing fires by employing capsules of solid carbon dioxide launched into a fire to cool the fire and deprive the fire of needed oxygen. Figure 1 of Primiani is a top view showing fighting a forest fire in progress while Figure 3 of Primiani shows early detection and response to a forest fire at its inception. Primiani teaches (column 4, line 62, to column 5, line 9) that

> Surveillance areas 17 are established and monitored. Upon detection of a fire occurrence 16, including by computer monitoring equipment 12, which may comprise infrared and other sensors 18 to detect flame designed for maximum range, or human observation 13 such as from a remote Ranger observation station 14, immediate response is initiated, such as from an artillery station 15 with capability of "immediate" response to a new fire. Artillery projectiles' firing and landing positions may be monitored and coordinated for accurate deployment using satellite communication position sensors.
>
> During the incidence of forest fires or other major building fires, the blocks of dry ice are hurtled into the fire by means of artillery 5 or other type of prime movers such as aircraft 6.

Dellinger discloses an unmanned craft used for reconnaissance having a fuselage, a propeller drive with a propeller being arranged in the tail portion of the fuselage for purposes of cruising, and a rocket assist propulsion system for the takeoff phase is releasably mounted to the fuselage.

The examiner determined (answer, p. 3) that the vehicle of Foote performs both the functions of the survey vehicle and the fire suppression vehicle. We do not agree. We have fully reviewed the disclosure of Foote and fail to find any support

for this determination of the examiner. In our view, Foote, at best, discloses a survey vehicle which (1) patrols an area; (2) surveys that area to detect a forest fire; (3) provides video and IR status information to a control and monitoring station about the fire status of the area; and (4) is remotely controlled from the control and monitoring station. Thus, Foote does not disclose or suggest a robotic fire suppression vehicle.

Primiani does not disclose or suggest a robotic fire suppression vehicle. In fact, Primiani teaches the use of aircraft as a fire suppression vehicle which in our view suggests a manned fire suppression vehicle, not a robotic fire suppression vehicle. Dellinger does not disclose or suggest a robotic fire suppression vehicle.

Since none of the applied prior art teaches or suggests a robotic fire suppression vehicle, it is our determination that it would not have been obvious at the time the invention was made to a person of ordinary skill in the art from the

teachings of the applied prior art to arrive at the subject matter of claims 1 to 7 which includes a robotic fire suppression vehicle. Moreover, even if the applied prior art would have been suggestive of a robotic fire suppression vehicle, there is no teaching or suggestion to have maintained/deployed the robotic fire suppression vehicle at a strategic location within the area surveyed by the robotic survey vehicle as set forth in independent claims 1 and 3.

Since the subject matter of claims 1 to 7 is not suggested by the applied prior art for the reasons set forth above, the decision of the examiner to reject claims 1 to 7 under 35 U.S.C. § 103 is reversed.

Claim 8

Claim 8 is drawn to a method for robotic fire protection comprising, inter alia, the steps of (1) providing a control and monitoring station; (2) providing a robotic survey vehicle for surveying an area which it is desired to protect from fire damage; (3) providing a robotic fire suppression vehicle for administering fire suppressant to a fire upon command. In

addition, claim 8 includes the steps of (1) upon detection of a fire requesting clearance to administer the fire suppressant from a cognizant security agency; and (2) making periodic reports to the cognizant security agency and a Forestry Service.

Since none of the applied prior art teaches or suggests a robotic fire suppression vehicle for the reasons set forth above in our discussion of claims 1 to 7, it is our determination that it would not have been obvious at the time the invention was made to a person of ordinary skill in the art from the teachings of the applied prior art to arrive at the subject matter of claim 8 which includes a robotic fire suppression vehicle. Moreover, it is our opinion that even if the applied prior art would have been suggestive of a robotic fire suppression vehicle, there is no teaching of the steps of (1) upon detection of a fire requesting clearance to administer the fire suppressant from a cognizant security agency; and (2) making periodic reports to the cognizant security agency and a Forestry Service as set forth in claim 8. In our view, the examiner's finding (answer, p. 7) that

these two steps were inherent is not supported by the teachings of the applied prior art.

Since the subject matter of claim 8 is not suggested by the applied prior art for the reasons set forth above, the decision of the examiner to reject claim 8 under 35 U.S.C. § 103 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1 to 8 under 35 U.S.C. § 103 is reversed.

REVERSED

IRWIN CHARLES COHEN Administrative Patent Judge	)	
NEAL E. ABRAMS Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES

JEFFREY V. NASE)
Administrative Patent Judge)

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